

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1-36. (canceled)

37. (previously presented) A method for identifying at least one ~~or more~~ micro-organism and/or micro-organism species in a sample, and for measuring the portion of the identified said at least one micro-organism and/or micro-organism species from a the sample, ~~characterized in that~~said method comprising:

a) binding a first fluorescent agent that absorbs light in a first wavelength area to a structure individualizing at least one micro-organism species or group in said sample and enabling identification ~~thereof a first fluorescent agent that absorbs light in a first wavelength area,~~

b) binding a second fluorescent agent that absorbs light in a second wavelength area to a structure characteristic of all micro organisms ~~a second fluorescent agent that absorbs light in a second wavelength area,~~

c) subjecting the sample to flow,

d) exciting the ~~aforementioned~~ first fluorescent agent in the ~~aforementioned~~ flow with a monochromatic light disposed in the first wavelength area,

e) exciting the ~~aforementioned~~ second fluorescent agent in the ~~aforementioned~~ flow with a monochromatic light disposed in the second wavelength area, and

f) identifying ~~the~~ a target ~~micro-organism~~ micro-organism by analyzing ~~the~~ fluorescence of the first and second fluorescent agents bound to ~~the~~ particles of the sample,

~~and in that~~ wherein the first and second fluorescent agents and the wavelength areas of the monochromatic light are chosen in such a manner that the difference in intensities of the mean fluorescences of the first and second fluorescent agents is at least ~~about~~ double on a logarithmic scale.

38. (currently amended) The method according to claim 37, ~~characterised in that the method~~ which further comprises a step at which the portion(s) of the identified target micro-organism(s) is/are calculated from the total amount of the sample.

39. (currently amended) The method according to claim 37, ~~characterised in that~~ wherein a measurable difference in intensities between the fluorescences of the first and second fluorescent agents is achieved in the first wavelength area.

40. (currently amended) The method according to ~~of~~ claim 37, ~~characterised in that~~wherein the sample is introduced into a flow cytometer.

41. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the first fluorescent agent is attached to ~~the~~ probes that are bound to the structure individualizing said at least one micro-organism species or group in the sample and enabling ~~the~~identification thereof.

42. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the structure individualizing said at least one micro-organism species or group and enabling the identification thereof is a ribosomal RNA molecule.

43. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the structure characteristic of all micro-organisms is DNA.

44. (currently amended) The method according to claim 37, ~~characterised in that~~wherein a threshold value is set for each micro-organism for each parameter specifically, and the micro-organisms are classified based on their threshold values.

45. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the first and/or second fluorescent agent is a fluorochrome.

46. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the micro-organism is a bacterium and/or a bacterial species.

47. (currently amended) The method according to claim 46, ~~characterised in that the aforementioned~~said ribosomal RNA ~~molecules are~~molecules is chosen from a group consisting of 16S ribosomal RNA molecules and 23S ribosomal RNA molecules.

48. (currently amended) The method according to claim 37, ~~characterised in that the~~wherein light scattering from the particles of the sample is detected.

49. (currently amended) The method according to claim 37, ~~characterised in that~~further comprising separating micro particles ~~are further separated from~~ the sample based on their scattering and/or fluorescence properties.

50. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the first wavelength area is 600-650 nm.

51. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the second wavelength area is 350-600 nm.

52. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the monochromatic lights disposed in the first and second wavelength area are formed by one light source.

53. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the monochromatic lights disposed in the ~~aforementioned~~ first and second wavelength area are formed by at least two light sources.

54. (currently amended) The method according to claim 53, ~~characterised in that~~wherein at least two of the ~~aforementioned~~ at least two light sources are disposed at a distance from each other, and ~~in that in the method,~~further wherein signal delay equipment is used to delay ~~the~~ measuring signals being created by means of the first and optionally the subsequent light sources.

55. (currently amended) The method according to claim 37, ~~characterised in that~~wherein the sample is ~~a sample from a mammal's organism fluid~~from a mammal.

56. (currently amended) The method according to claim 55, ~~characterised in that the sample is a sample originating from a mammal~~ wherein the sample is from the digestive system of the mammal.

57. (currently amended) The method according to claim 37, ~~characterised in that~~ wherein the sample is a waste water sample.

58-66. (canceled)

67. (canceled)

68. (currently amended) The ~~use according to claim 67,~~ method according to claim 37, wherein the micro-organism is a probiotic bacterial strain.

69-70. (canceled)

71. (new) A method for identifying at least one micro-organism and/or micro-organism species in a sample, and for measuring the portion of the identified said at least one micro-organism and/or micro-organism species from the sample, said method comprising:

a) binding a first fluorescent agent that absorbs light in a first wavelength area to a structure individualizing at least one micro-organism species or group in said sample and enabling identification thereof,

b) binding a second fluorescent agent that absorbs light in a second wavelength area to a structure characteristic of all micro organisms,

c) subjecting the sample to flow,

d) exciting the first fluorescent agent in the flow with a monochromatic light disposed in the first wavelength area,

e) exciting the second fluorescent agent in the flow with a monochromatic light disposed in the second wavelength area,

f) identifying a target micro-organism by analyzing fluorescence of the first and second fluorescent agents bound to particles of the sample, and

g) separating micro particles from the sample based on their scattering and/or fluorescence properties,

wherein the first and second fluorescent agents and the wavelength areas of the monochromatic light are chosen in such a manner that the difference in intensities of the mean fluorescences of the first and second fluorescent agents is at least double on a logarithmic scale, and

said sample contains numerous species of micro-organisms.